FINAL REPORT

RED LODGE AIRPORT DUMP CARBON COUNTY, MONTANA

JUNE, 1985

L. C. HANSON COMPANY

CONSULTING ENGINEERS & SURVEYORS
HELENA — GREAT FALLS — GLENDIVE





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Abandoned Mine Reclamation Bureau

Department of State Lands

State of Montana

PREPARED BY: L. C. Hanson Company

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RED LODGE AIRPORT DUMP

OBJECTIVE:

The project goal was to excavate excess coal waste materials adjacent to the Red Lodge Airport and to dispose of these materials in designated pits near the airport. Some coal waste material was burning in the source pile and required extinguishing all burning materials prior to disposal in any embankment.

PROJECT LOCATION:

The coal waste pile existed in the southeast portion of the Red Lodge Airport adjacent to the main runway and the hanger complex. This pile rose approximately 100 feet above the elevation of the hangar area.

Two disposal pits were available nearby to dispose of a portion of the coal waste pile. Both pits were a result of previous borrow operations. One pit existed at the north end of the airport along Highway 78 which required a haul of approximately one-half mile. The other pit existed on the west side of the airport requiring a haul of approximately one mile around either end of the main runway.

PROJECT PLANNING:

The reclamation plan for this project was originally designed and engineered by Kiewit Mining and Engineering as a part of a larger project in the Red Lodge area.

L. C. Hanson Company was contracted to redesign the original Red Lodge work into smaller projects. The Red Lodge Airport Dump project was then advertised and a Contract for construction was awarded to Byron's Construction of Glendive, Montana.

WORK DESCRIPTION:

Work commenced on November 5, 1984 with the Contractor loading trucks with a dozer and belt conveyor setup. A water truck, patrol and roller worked at the disposal sites. All burning materials were extinguished at the disposal pits. The project was placed in a "Winter Shutdown" status on December 7, 1984. All waste materials had been moved with 70,000 cubic yards placed at the Right-of-Way Pit and 21,000



cubic yards placed at the West Gravel Pit.

Work resumed April 17, 1985 with the placement of lime on the coal waste materials, spreading of topsoil, seeding, fertilizing, mulching, and the installation of fencing around the disposal sites.

DISCUSSION:

Topsoil for this project existed in a stockpile at the West Gravel Pit. Approximately 2200 cubic yards were used on this project leaving 1450 cubic yards.

The remaining pile of coal waste material at the Airport was used in another project.

The application rate for lime placement was changed from 4 tons/acre to 200 lbs/acre. Since the Contractor had already purchased the lime, the original Contract amount was delivered to Red Lodge and the excess lime was placed in storage for use on other reclamation projects.

A Change Order for placing an additional 21,000 cubic yards of coal waste material in the designated disposal pits was executed during the Contract.

Sixty (60) consecutive calendar days were allowed to complete the job. The Contractor did not commence work until 28 days of the Contract had elapsed. Consequently, he needed all the remaining time plus all holiday and weather credit days to complete the project.

QUANTITY SUMMARY:

Total Area of Disposal Pits	6.7 acres
Coal Waste Material Placed in Disposal Pits	91,000 C.Y.
Type F4W Farm Fence	1990 ± L.F.
TOTAL CONSTRUCTION COST	\$ 141,089.30
Cost Per Acre	\$ 21,058.10

COMMENTS:

The Contractor's personnel were cooperative.



The equipment was average. There was considerable down time due to repairs. Supervision was lacking. The assigned superintendent was also an operator, spending most of his time running or repairing equipment.

The use of another firm's engineering data and quantities posed a few problems. Those estimated quantities that our firm recalculated did not agree with those determined by others.

Elevations shown on the Plans would not check between the shown control points.

The local highway maintenance man expressed a concern on snow possibly drifting over Highway 78 adjacent to the Right-of-Way Pit as a result of this project. It has been agreed between the Department of Highways and the Department of State Lands that the potential snow problems be studied for two winter seasons before any additional work be contemplated.

The completed project complies with the Contract requirements. The L. C. Hanson Company has recommended acceptance of the project to the Department of State Lands.

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Mine reclamation project to begin soon

RED LODGE--Bids were opened last week and work is expected to begin soon on two Red Lodge abandoned mine reclamation projects.

The Dept. of State Lands, Mine Reclamation Division, opened the bids last week for removal of the old West Bench mine slack pile near the airport. Low bidder was Bryon Construction of Glendive which bid \$118,036. The state engineer's estimate for the project was \$150-250,000.

The firm winning the bid for removal of the slack pile at the old city landfill and sloping of the site for use as a zoo and park, was Swan and Sons of Anaconda. Its bid of \$537,611 fell far short of the engineer's estimate of just over \$1 million.

Both companies are slated to begin work as soon as bonding and insurance requirements are satisfied. State officials say equipment could be on site as soon as next week.

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RED LODGE AIRPORT DUMP

- 1. Belt conveyor loading truck with coal waste material.
- 2. Bulldozer pushing coal waste materials to belt conveyor setup.
- 3. Portion of coal waste pile containing burning materials.

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Belt conveyor loading truck with coal waste material.

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Portion of coal maste wile containing burning materials



